IN THE CLAIMS:

1. (Previously Presented) A system for inserting an electronic watermark data comprising:

DCT converter for extracting a block of k X k pixels from an original image, subjecting said block to DCT (discrete cosine transform), and then outputting data after the DCT conversion;

quantizer for quantizing DCT coefficients output from said DCT converter;

movement decision means for deciding the magnitude of a movement based on a generation amount from said DCT converter;

picture-type decision means for deciding a picture type;

an electronic watermark data table for storing first to j-th electronic watermark data, each of said first to j-th electronic watermark data having two values depending on the magnitude of a movement, one value corresponding to low movement and the other corresponding to high movement, when the movement value is compared with a threshold value and said movement is based on a generation amount from said DCT converter, for each picture type;

electronic watermark data selector for selecting said electronic watermark data of one type according to said picture type and said movement; and

electronic watermark data inserter means for inserting said selected electronic watermark data into data after said DCT conversion;

whereby the magnitude of a movement is decided by obtaining a difference between a DCT coefficient of a front frame and a DCT coefficient of a rear

frame and electronic watermark data with a suitable strength is inserted according to the magnitude of said movement.

2. (Original) A system for inserting an electronic watermark data comprising:

DCT converter for extracting a block of k X k pixels from an original image, subjecting said block to DCT (discrete cosine transform), and then outputting data after the DCT conversion;

quantizer means for quantizing DCT coefficients output from said DCT converter means;

movement decision means for deciding the magnitude of a movement based on a generation amount from said DCT converter means;

picture-type decision means for deciding a picture type;

original electronic watermark data memory for storing original electronic watermark data;

j first multipliers each for subjecting said original electronic watermark to multiplication data according to said picture type;

an electronic watermark data table for storing electronic watermark data of j types ranging from the first electronic watermark data to the j-th electronic watermark data being outputs from said j multipliers;

electronic watermark data selector for selecting electronic watermark data of one type among said electronic watermark data of j types;

a second multiplier for subjecting said selected electronic watermark data to multiplication according to the magnitude of a movement obtained based on a difference between said DCT coefficients; and

electronic watermark data insertion means for inserting electronic watermark data obtained through multiplication by said second multiplier into data after said DCT conversion;

whereby the magnitude of a movement is decided by obtaining a difference between a DCT coefficient of a front frame and a DCT coefficient of a rear frame and electronic watermark data with a suitable strength is inserted according to the magnitude of said movement.

3. (Previously Presented) A apparatus for inserting an electronic watermark data comprising:

a DCT converter for extracting a block of k X k pixels from an original image, subjecting said block to DCT (discrete cosine transform), and then outputting data after the DCT conversion;

a quantizer for quantizing DCT coefficients output from said DCT converter;

a movement decision unit for deciding the magnitude of a movement based on a generation amount from said DCT converter;

a picture-type decision unit for deciding a picture type;

an electronic watermark data table for storing first to j-th electronic watermark data, each of said first to j-th electronic watermark data having two values

depending on the magnitude of a movement, one value corresponding to low movement and the other corresponding to high movement, when the movement value is compared with a threshold value and said movement is based on a generation amount from said DCT converter, for each picture type;

an electronic watermark data selector for selecting said electronic watermark data of one type according to said picture type and said movement; and

an electronic watermark data inserter means for inserting said selected electronic watermark data into data after said DCT conversion;

an inverse quantizer for inverse-quantizing a block of k X k pixels in which said electronic watermark data is inserted; and

an IDCT converter for performing an IDCT (discrete cosine transform) of a block of k X k pixels in which said electronic watermark data inverse-quantized is inserted.

4. (Previously Presented) An apparatus for inserting an electronic watermark data comprising:

a DCT converter for extracting a block of k X k pixels from an original image, subjecting said block to DCT (discrete cosine transform), and then outputting data after the DCT conversion;

a quantizer for quantizing DCT coefficients output from said DCT converter;

a movement decision unit for deciding the magnitude of a movement based on a generation amount from said DCT converter;

a picture-type decision unit for deciding a picture type;

an electronic watermark data table for storing first to j-th electronic watermark data, each of said first to j-th electronic watermark data having two values depending on the magnitude of a movement, one value corresponding to low movement and the other corresponding to high movement, when the movement value is compared with a threshold value and said movement is based on a generation amount from said DCT converter, for each picture type;

an electronic watermark data selector for selecting said electronic watermark data of one type according to said picture type and said movement; and

an electronic watermark data inserter means for inserting said selected electronic watermark data into data after said DCT conversion; and

a Huffman encoder for encoding data after insertion of said electronic watermark data.

5. (Original) An apparatus for inserting an electronic watermark data comprising:

a DCT converter for extracting a block of k X k pixels from an original image, subjecting said block to DCT (discrete cosine transform), and then outputting data after the DCT conversion;

a quantizer for quantizing DCT coefficients output from said DCT converter;

a movement decision unit for deciding the magnitude of a movement based on a generation amount from said DCT converter;

a picture-type decision unit for deciding a picture type;

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original electronic watermark data storage means for storing original electronic watermark data;

j first multipliers each for subjecting said original electronic watermark to multiplication data according to said picture type;

an electronic watermark data table for storing electronic watermark data of j types ranging from the first electronic watermark data to j-th electronic watermark data being outputs from said j multipliers;

an electronic watermark data selector for selecting electronic watermark data of one type among said electronic watermark data of j types;

a second multiplier for subjecting said selected electronic watermark data to multiplication according to the magnitude of a movement obtained based on a difference between said DCT coefficients; and

an electronic watermark data inserter for inserting electronic watermark data obtained through multiplication by said second multiplier into data after said DCT conversion;

an inverse quantizer for inverse-quantizing a block of k X k pixels in which said electronic watermark data is inserted; and

an IDCT converter for performing an IDCT (discrete cosine transform).

6. (Previously Presented) The apparatus for inserting an electronic watermark data defined in Claim 5, wherein said first multiplier and said second multiplier are omitted when a multiplication coefficient is 1.

7. (Cancelled)

8. (New) A system for inserting an electronic watermark data comprising:

DCT converter for extracting a block of k X k pixels from an original image, subjecting said block to DCT (discrete cosine transform), and then outputting data after the DCT conversion;

quantizer for quantizing DCT coefficients output from said DCT converter;

movement decider which operates to decide the magnitude of a movement based on a generation amount from said DCT converter;

picture-type decider which operates to determine a picture type;

an electronic watermark data table for storing first to j-th electronic watermark data, each of said first to j-th electronic watermark data having two values depending on the magnitude of a movement, one value corresponding to low movement and the other corresponding to high movement, when the movement value is compared with a threshold value and said movement is based on a generation amount from said DCT converter, for each picture type;

electronic watermark data selector for selecting said electronic watermark data of one type according to said picture type and said movement; and

electronic watermark data inserter which operates to insert said selected electronic watermark data into data after said DCT conversion;

whereby the magnitude of a movement is decided by obtaining a difference between a DCT coefficient of a front frame and a DCT coefficient of a rear frame and electronic

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watermark data with a suitable strength is inserted according to the magnitude of said movement.